



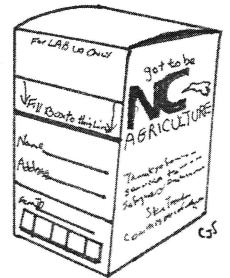
April

FREE SOIL TESTS

Soil tests are free between April 1 and November 30. The health of soil is a primary factor affecting every plant in the garden. Obtain soil test information here [23]. Ideally, soil testing should be done every 2-3 years. Sample boxes may be picked up at: NC Extension Office, Wake County Center, 4001-E Carya Drive, Raleigh 27610 or NCDA & CS Agronomic Division Office, 4300 Reedy Creek Road, Raleigh 27607.

WHY TEST?

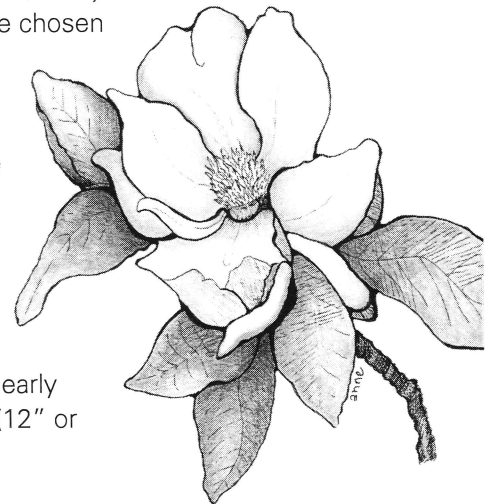
A soil test is the only reliable method to determine the relative acidity of the soil (pH) and the level of several essential nutrients needed - phosphorus, potassium, calcium, magnesium, sodium, sulfur, manganese, copper, and zinc. The test results aid in plant selection, soil preparation, and fertilization. They help avoid over fertilizing, which can stimulate excessive plant growth and increase the likelihood of some diseases. In addition, excess fertilizer runoff causes stream and waterway pollution. By applying the correct grade and amount of fertilizer, you avoid unnecessary pruning of excessive growth and have healthier, more productive plants.



Trees/Shrubs

Plant: Early spring is a good time to plant fruit trees such as apple, loquat, pear, apricot, mulberry, cherry, olive, fig, pawpaw, quince, jujube, persimmon, pomegranate, etc. Some of these (cherry and apricot, for example) do not consistently produce edible fruit in NC, but are chosen for their ornamental spring flowers. For drought tolerant trees, consider the following: Arizona cypress, Chinese pistachio, crape myrtle, deodar cedar, eastern red cedar, golden raintree, Hollywood juniper, Japanese cedar, *Ginkgo biloba*, pine, and southern magnolia. Spring and fall are the best times to plant hydrangea, which require rich, well-drained soil and a location that receives morning sun and afternoon shade.

Prune: Prune spring-flowering shrubs that bloom before May immediately after flowering; these include forsythia, deutzia, lilac, viburnum, and mock orange. These shrubs flower on buds formed the previous summer or fall, and if pruned during late summer, fall, winter, or early spring, many of the flower buds would be removed. Lightly prune azalea (12" or less) after flowering but not after July 10. Prune berry-producing shrubs (holly, pyracantha, etc.) while in bloom, but avoid cutting flowers to allow berry development. Perform light pruning as desired for trees such as maple, birch, elm, styrax, and dogwood.



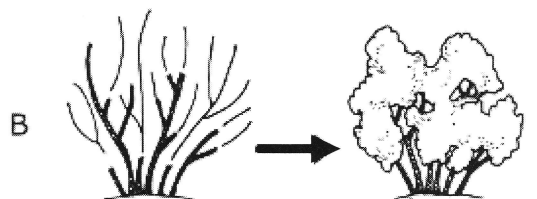
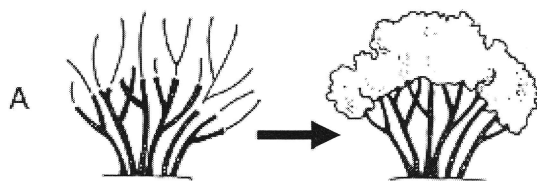
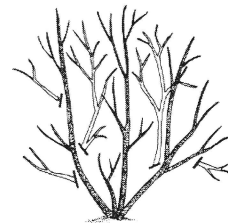
southern magnolia, *Magnolia grandiflora*

Patrol: Citrus whitefly, lecanium scale, boxwood leaf miners, aphids, and azalea lace bugs may be present. Cottony maple leaf scale feeds primarily on maple and dogwood, but also infests holly, pieris, and gum. In April and May, cottony maple leaf scale moves to the leaves and lays up to 2500 eggs in cottony ovisacs on the leaf undersides. Use horticultural oil or insecticidal soap on crawlers if the infestation is severe. Southern magnolias (*Magnolia grandiflora*) drop leaves periodically throughout the year but shed a large number of leaves in April and May, which is normal, leading up to flowering and putting on vegetation. The shed leaves are yellowish-brown and often show algal leaf spots (*Cephaleuros virescens*). Though not a serious issue, it's best to follow good sanitation practices by retrieving fallen leaves. Improve sunlight penetration and air movement by selectively pruning adjacent vegetation.

"Spring is nature's way of saying, 'Let's party!'" - Robin Williams

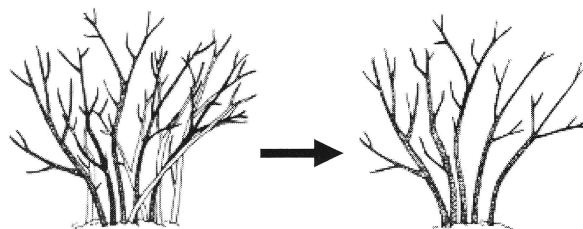
SOME HELPFUL PRUNING TECHNIQUES

from North Carolina Extension Gardener Handbook



Heading back: Cutting back woody branches to an arbitrary position without regard for buds or side branches. Heading back stimulates shoot growth below the cut, making the plant denser but repeated use can lead to a top-heavy plant reducing sunlight to the plant interior leading to foliage loss (A) and is not recommended. Instead, when heading back, make some cuts further inside the plant to produce fuller foliage and promote natural growth habit (B).

Thinning: Removing a branch to a lateral side branch, Y branch junction, or back to its point of origin on the parent stem resulting in a more open plant without stimulating excessive new growth. Repeated thinning with no heading back results in plants with long, spindly branches.



Renewal pruning (rejuvenation): Removal of the oldest branches of a shrub by pruning them near the ground. Younger, more vigorous branches are left but may be cut back. Small pencil-sized stems are also removed. Suitable for azalea, *Deutzia spp.*, forsythia, pittosporum, spirea, and weigela. Plants that can take severe renewal pruning back to the ground include butterfly bush, red twig dogwood, and beautyberry.

Bulbs

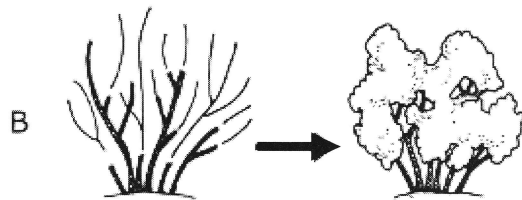
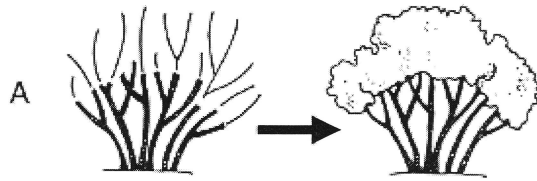
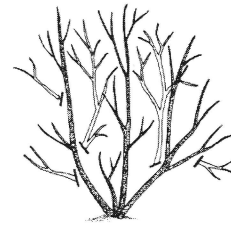
Plant: Plant summer- and fall-flowering bulbs after danger of frost has passed. Dig the bed deeply to loosen soil. The bulb planting depth should be between 2-3 times the height of the bulb. (See chart p.53) When planting tubers, place the crown, or growing point, 1" - 2" below the soil surface. Follow specific planting instructions that accompany tubers. If the plant is established, divide before new growth appears, and lightly fertilize. Stake if the plant will exceed 2' in height. Apply a 2" - 3" layer of mulch to most bulbs, but not to rhizomes (such as bearded iris) [24] as it may promote root rot. If planting dahlias, insert a support stake at planting, especially for taller varieties.

Patrol: Certain bulbs, such as freshly planted tulips and crocus, appeal to wildlife including voles, chipmunks, and deer. To prevent them from being devoured, use ½" galvanized hardware cloth to create cages to protect bulbs. Place the bulbs inside the cages with the root end down and bury the entire cage at the proper planting depth. Apply repellents to the soil at the planting site and reapply frequently, especially after every rain. An alternative to cages is to use products such as Perma-til or VoleBloc, which are safe for the environment. Or choose bulbs that wildlife ignore, such as daffodil, snowdrop, grape hyacinth, and allium. However, even though wildlife species may not eat those bulbs, they might still dig them up. See Voles and/or Moles in Garden Basics.



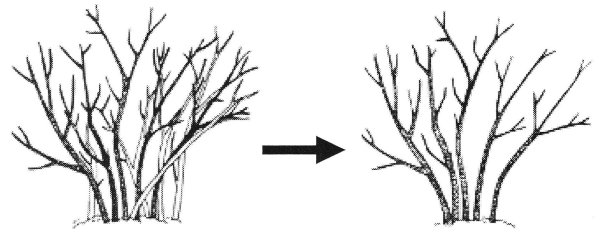
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Annuals/Biennials

Plan: Harden off annuals (gradually expose tender plants to sunlight, wind, rain, and uneven temperatures) that were started indoors to allow the cuticle of the leaves to thicken so they lose less water. This helps prevent transplant shock, stunting, or death of plants. Start with just a few minutes in the sun and keep plants outdoors for gradually longer amounts of time each day. Bring them indoors if a late spring freeze is forecast.

Plant: Tender annuals can be sown directly in the garden but only after all danger of frost has passed. Plant hardy annuals such as calendula, foxglove, larkspur, California poppy, and other warm-season annuals in early to mid-April. The planting window for hardy annuals lasts up until the first frost in the fall. Replace cool-season annuals like pansy with summer annuals such as ageratum, begonia, coleus, impatiens, marigold, morning glory, petunia, zinnia, and vinca, after the threat of frost has passed.

Prune: Deadhead petunia, marigold, etc. to get more blooms in the spring. Do this monthly until mid-July.

Patrol: Check mulch or pine straw to ensure it is protecting plants from weeds and dry spells, and doesn't exceed 2" - 3" depth.

Pointers: Plant the biennial sweet William (*Dianthus barbatus*) near entrances to enjoy the delightful, welcoming fragrance.

Vegetables

Plant: The planting window for cool-season vegetables continues, as noted in previous months. The planting window for warm-season vegetables (tomato, pepper) begins and runs for 2 - 3 months. Wake County's average last frost date is April 6 but since it is an average, there is still risk of frost damage (frosts occasionally occur into mid-April or later). Wait until the soil temperature is at least 60°F to plant warm-season vegetables to prevent a late frost destroying young crops. For up-to-date ground temperatures in North Carolina, refer to this daily weather map [25]. Transplant purchased or home-grown tomato and peppers. Transplant or direct seed cucumber and squash. Water planted seeds and transplants well for the first few weeks after planting in garden. Planting annual flowers like zinnia and marigold in the garden bed attracts pollinators and thus increases vegetable production. Perennial flowers planted near the vegetable garden perform the same service.

Harvest: Continue harvesting cool-season crops as appropriate. Leaf lettuce: The older outer leaves can be harvested as soon as they are 4" - 6" long; leave the younger leaves to mature for later harvest.

Pointers: Trellises, cages, stakes, etc. can be used to support vegetables such as tomato, cucumber, squash, pepper, and pole bean; they also save space, facilitate harvesting, promote air flow, and prevent disease. They should be installed at time of planting so as to not damage roots later.

Mulching a garden helps retain soil moisture and reduce weed growth. Many diseases, especially in tomatoes, are spread by water splashing from the soil to the leaves; organic mulches (straw, leaves, compost) help prevent the splash.

HARDENING OFF VEGETABLE SEEDLINGS

Hardening off helps plants adjust to the environmental changes they'll experience when planted. A week prior to moving seedlings to the garden, set them outside in partial shade where they are also protected from wind. Begin with a few hours, gradually increasing their time outside each day. Bring seedlings inside overnight or during cold temperatures. Without allowing them to wilt, increase the time between watering. When the plants have spent the majority of their day in the sun and can tolerate less water, they are ready for their new home in the garden.



Herbs

Plant: Planting window for herbs continues. Direct sow cilantro, fennel, and parsley seeds. Plant seedlings or transplant basil, oregano, parsley, rosemary, sage, and thyme.

Pointers: Plant extra parsley, dill and fennel for the swallowtail caterpillars. Plants will eventually recover from any caterpillar damage (see August). Parsley does not do well in drought but likes moist, well-drained soil.

Lawns

Cool-season lawns: Mow to 2½" - 3½" height and water 1" per week. Watch for brown patch, fairy ring fungus, and white grubs.

Warm-season lawns: Mow to 1" after the grass first turns green, being careful not to scalp the lawn.

Patrol: Watch for dollar spot on fescue, bermudagrass, and zoysiagrass from late spring to fall, especially after moist weather.

Pointers: Re-connect and test automatic irrigation systems after winterization. If bermudagrass invades fescue lawn, use an herbicide which targets only bermudagrass, and apply only in spring and fall. [26] describes how to keep bermudagrass out of a fescue lawn.